

## REMARKS

### **I. Introduction**

In response to the pending Office Action, Applicants have amended claim 1 to further clarify the intended subject matter of the invention. Support for the amendment to claim 1 can be found, for example, on page 20, lines 3-6 of the specification. In addition, Fig. 9 has been amended to indicate that it is Prior Art. No new matter has been added.

For the reasons set forth below, Applicants respectfully submit that all pending claims are patentable over the cited prior art.

### **II. The Rejection Of Claims 1-4, 6-7 And 9 Under 35 U.S.C. § 102**

Claims 1-4, 6, 7 and 9 were rejected under 35 U.S.C. § 102(b) as being anticipated by Applicant's Admitted Prior Art (AAPA) disclosed in the background portion of the specification and illustrated in Fig. 9 of the application. Applicants respectfully submit that the AAPA fails to anticipate the pending claims for at least the following reasons.

With regard to the present invention, amended claim 1 discloses in-part, a silicon carbide semiconductor device comprising: a semiconductor layer made of silicon carbide; an electrode provided on the semiconductor layer, wherein the electrode comprises: a first electrode portion in contact with the semiconductor layer; and a second electrode portion interposed between the first electrode portion and the interlayer dielectric film; and the first electrode portion and the second electrode portion are formed from different materials.

In contrast to the claimed invention, the AAPA does not disclose the recited "second electrode portion interposed between the first electrode portion and the interlayer dielectric

film". The Examiner has taken an unsupportable position that the upper portion of the electrode **108** (shown in Fig. 9) corresponds to the claimed second electrode portion **9**, and the lower portion of the electrode **108** corresponds to the claimed first electrode portion **8**. Clearly, the portions **8** and **9** recited by the pending claims are formed separately from each other, and therefore are not merely separate portions of one electrode.

However, even if the Examiner's assertion that the upper portion of the electrode **108** (shown in Fig. 9) corresponds to the claimed second electrode portion and the lower portion of the electrode **108** corresponds to the claimed first electrode portion is correct, the AAPA fails to disclose that the first electrode portion and the second electrode portion are formed from different materials. As the Applicants clearly disclose in the Background of the Invention, the necessity of having two electrode portions of different materials is because:

"in the semiconductor device with the above-described structure, when the interlayer dielectric film **110** has been deposited, the adhesion between nickel constituting the source electrodes **108** and silicon oxide constituting the interlayer dielectric film **110** is poor, which causes the problem that the silicon oxide on the source electrodes **108** undesirably peels off."

On page 20 lines 3-6 of the specification, the Applicants clearly point out that the first source electrodes **8** made of nickel or nickel silicide and the second source electrodes **9** made of aluminum are formed so as to cover the side faces and top faces of the first source electrodes **8**. As the electrode **108** of the prior art is made of only one material (nickel), the prior art fails to disclose the limitations of claim 1 of the present invention.

As anticipation under 35 U.S.C. § 102 requires that each element of the claim in issue be found, either expressly described or under principles of inherency, in a single prior art reference, *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983), and at a minimum, the AAPA does not disclose a second electrode portion interposed between the first electrode portion and the interlayer dielectric film; and the first electrode portion and the second electrode portion are formed from different materials, it is clear that the AAPA does not anticipate claim 1, or any claim dependent thereon.

**III. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable**

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 1 is patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

**IV. Conclusion**

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication of which is respectfully solicited.

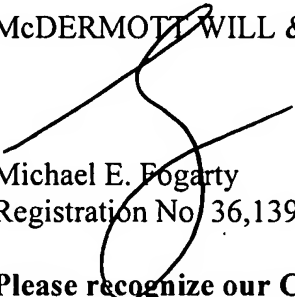
To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

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including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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**AMENDMENTS TO THE DRAWINGS:**

Please amend Fig. 9 as indicated on the enclosed copy thereof. Fig. 9 has been amended to indicated its status as Prior Art.